

PATENT COOPERATION TREATY

PCT

3000 PCT/ISA/220

08 MAR 2005

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference WO 21.1110	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/EP 03/10005	International filing date (day/month/year) 08/09/2003	(Earliest) Priority Date (day/month/year) 10/09/2002
Applicant SERVICES PETROLIERS SCHLUMBERGER		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :
 - contained in the international application in written form.
 - filed together with the international application in computer readable form.
 - furnished subsequently to this Authority in written form.
 - furnished subsequently to this Authority in computer readable form.
 - the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 - the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. Certain claims were found unsearchable (See Box I).
 3. Unity of invention is lacking (see Box II).

4. With regard to the title,

- the text is approved as submitted by the applicant.
- the text has been established by this Authority to read as follows:

5. With regard to the abstract,

- the text is approved as submitted by the applicant.
- the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

- as suggested by the applicant.
- because the applicant failed to suggest a figure.
- because this figure better characterizes the invention.

1 _____

None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP03/10005

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 E21B47/10 E21B17/10 E21B47/01

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 294 074 A (WESTERN ATLAS INT INC) 17 April 1996 (1996-04-17) cited in the application page 7, line 31 -page 11, line 17; figures 1,2,6	1-3, 9-11,13
Y	---	8
Y	FR 1 549 531 A (SCHLUMBERGER PROSPECTION) 13 December 1968 (1968-12-13) claim 1; figures 3,4 ---	8
A	US 5 661 237 A (DUSSAN V ELIZABETH B ET AL) 26 August 1997 (1997-08-26) cited in the application column 7, line 5 - line 16; figure 2 ---	1
	-/-	

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

° Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

20 February 2004

Date of mailing of the international search report

27/02/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Dantinne, P

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP/3/10005

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 765 640 A (PAPE GARY J ET AL) 16 June 1998 (1998-06-16) column 2, line 4 - line 7; figures 3-5 ---	1
A	FR 2 267 442 A (SCHLUMBERGER PROSPECTION) 7 November 1975 (1975-11-07) page 2, line 14 - line 17; figures 2,4 ---	1
A	FR 2 797 295 A (SCHLUMBERGER SERVICES PETROL) 9 February 2001 (2001-02-09) page 8, line 3 -page 9, line 16; figures 1,4 ----	1
A	US 5 242 020 A (COBERN MARTIN E) 7 September 1993 (1993-09-07) column 5, line 1 - line 22; figure 3 -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP/3/10005

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
GB 2294074	A 17-04-1996	CA NO US	2160176 A1 954001 A 5574263 A	15-04-1996 15-04-1996 12-11-1996
FR 1549531	A 13-12-1968	DE ES GB NL NL NO OA SU US	1803736 A1 359793 A1 1242252 A 6814910 A ,B 7803560 A 126542 B 2917 A 480222 A3 3685158 A	26-06-1969 16-06-1970 11-08-1971 06-05-1969 31-07-1978 19-02-1973 15-12-1970 05-08-1975 22-08-1972
US 5661237	A 26-08-1997	FR CA DE DE DK EP NO ZA	2732068 A1 2172440 A1 69609220 D1 69609220 T2 733780 T3 0733780 A1 961191 A 9602328 A	27-09-1996 24-09-1996 17-08-2000 22-03-2001 13-11-2000 25-09-1996 24-09-1996 24-10-1996
US 5765640	A 16-06-1998	AU AU CA GB NO	707448 B2 1262097 A 2196933 A1 2310871 A ,B 971039 A	08-07-1999 11-09-1997 07-09-1997 10-09-1997 08-09-1997
FR 2267442	A 07-11-1975	FR AR CA GB JP JP JP US US	2267442 A1 203419 A1 1027860 A1 1501683 A 1143579 C 50144462 A 57033524 B 3915229 A 4006530 A	07-11-1975 08-09-1975 14-03-1978 22-02-1978 26-04-1983 20-11-1975 17-07-1982 28-10-1975 08-02-1977
FR 2797295	A 09-02-2001	FR AU BR CN EA WO GB NO	2797295 A1 6567500 A 0012721 A 1361847 T 3623 B1 0111190 A1 2368129 A ,B 20020544 A	09-02-2001 05-03-2001 09-04-2002 31-07-2002 28-08-2003 15-02-2001 24-04-2002 04-02-2002
US 5242020	A 07-09-1993	GB	2251014 A	24-06-1992